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<151> January 5, 1998

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Pro Arg Ser His Phe Phe Pro Phe Asp Leu Phe Pro Met Cys Pro
65 70 75
Phe Gly Cys Gln Cys Tyr Ser Arg Val Val His Cys Ser Asp Leu
80 85 90
Gly Leu Thr Ser Val Pro Thr Asn Ile Pro Phe Asp Thr Arg Met
95 100 105
Leu Asp Leu Gln Asn Asn Lys Ile Lys Glu Ile Lys Glu Asn Asp
110 115 120
Phe Lys Gly Leu Thr Ser Leu Tyr Gly Leu Ile Leu Asn Asn Asn
125 130 135
Lys Leu Thr Lys Ile His Pro Lys Ala Phe Leu Thr Thr Lys Lys
140 145 150
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170 175 180
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 35 40 45
 Arg Gly Ala Ala Gly Cys Thr Phe Gly Gly Lys Val Tyr Ala Leu
 50 55 60
 Asp Glu Thr Trp His Pro Asp Leu Gly Gln Pro Phe Gly Val Met
 65 70 75

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Thr Arg Gly Pro Gly Arg Val Ser Cys Lys Asn Ile Lys Pro Glu	95	100	105
Cys Pro Thr Pro Ala Cys Gly Gln Pro Arg Gln Leu Pro Gly His	110	115	120
Cys Cys Gln Thr Cys Pro Gln Glu Arg Ser Ser Ser Glu Arg Gln	125	130	135
Pro Ser Gly Leu Ser Phe Glu Tyr Pro Arg Asp Pro Glu His Arg	140	145	150
Ser Tyr Ser Asp Arg Gly Glu Pro Gly Ala Glu Glu Arg Ala Arg	155	160	165
Gly Asp Gly His Thr Asp Phe Val Ala Leu Leu Thr Gly Pro Arg	170	175	180
Ser Gln Ala Val Ala Arg Ala Arg Val Ser Leu Leu Arg Ser Ser	185	190	195
Leu Arg Phe Ser Ile Ser Tyr Arg Arg Leu Asp Arg Pro Thr Arg	200	205	210
Ile Arg Phe Ser Asp Ser Asn Gly Ser Val Leu Phe Glu His Pro	215	220	225
Ala Ala Pro Thr Gln Asp Gly Leu Val Cys Gly Val Trp Arg Ala	230	235	240
Val Pro Arg Leu Ser Leu Arg Leu Leu Arg Ala Glu Gln Leu His	245	250	255
Val Ala Leu Val Thr Leu Thr His Pro Ser Gly Glu Val Trp Gly	260	265	270
Pro Leu Ile Arg His Arg Ala Leu Ala Ala Glu Thr Phe Ser Ala	275	280	285
Ile Leu Thr Leu Glu Gly Pro Pro Gln Gln Gly Val Gly Gly Ile	290	295	300
Thr Leu Leu Thr Leu Ser Asp Thr Glu Asp Ser Leu His Phe Leu	305	310	315
Leu Leu Phe Arg Gly Leu Leu Glu Pro Arg Ser Gly Gly Leu Thr	320	325	330
Gln Val Pro Leu Arg Leu Gln Ile Leu His Gln Gly Gln Leu Leu	335	340	345
Arg Glu Leu Gln Ala Asn Val Ser Ala Gln Glu Pro Gly Phe Ala	350	355	360
Glu Val Leu Pro Asn Leu Thr Val Gln Glu Met Asp Trp Leu Val			

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485	490	495
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Gly His Ser Ala Arg His Asp Thr Leu Pro Val Pro Leu Ala Gly		
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Trp Leu Ser Leu Asp Thr His Cys His Leu His Tyr Glu Val Leu		
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Leu Leu Gly Pro Pro Gly Thr Pro Gly Pro Arg Arg Leu Leu Lys		
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Gly Phe Tyr Gly Ser Glu Ala Gln Gly Val Val Lys Asp Leu Glu		
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Pro Glu Leu Leu Arg His Leu Ala Lys Gly Met Ala Ser Leu Met		
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635	640	645
His Ile Ala Asn Gln Cys Glu Val Gly Gly Leu Arg Leu Glu Ala		
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Ala	Lys	Pro	Gly	Gly	Pro	Gly	Arg	Pro	Arg	Asp	Pro	Asn	Thr	Cys
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Phe	Phe	Glu	Gly	Gln	Gln	Arg	Pro	His	Gly	Ala	Arg	Trp	Ala	Pro
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Asn	Tyr	Asp	Pro	Leu	Cys	Ser	Leu	Cys	Thr	Cys	Gln	Arg	Arg	Thr
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 tcagtagtga gtattttctca tagtgcagct ttatttatct ccaggatggt 3150
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 ccaaccatat tgaataaatg tgatcaagtc a 3231

<210> 15
 <211> 737
 <212> PRT
 <213> Homo Sapien

<400> 15
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 Ala Leu Ala Leu Leu Leu Leu Leu Leu Gly Ala Gly Pro Arg Gly
 20 25 30
 Ser Ser Leu Ala Asn Pro Val Pro Ala Ala Pro Leu Ser Ala Pro
 35 40 45
 Gly Pro Cys Ala Ala Gln Pro Cys Arg Asn Gly Gly Val Cys Thr
 50 55 60
 Ser Arg Pro Glu Pro Asp Pro Gln His Pro Ala Pro Ala Gly Glu
 65 70 75
 Pro Gly Tyr Ser Cys Thr Cys Pro Ala Gly Ile Ser Gly Ala Asn
 80 85 90
 Cys Gln Leu Val Ala Asp Pro Cys Ala Ser Asn Pro Cys His His
 95 100 105
 Gly Asn Cys Ser Ser Ser Ser Ser Ser Ser Asp Gly Tyr Leu

004466-06466

110	115	120
Cys Ile Cys Asn Glu Gly Tyr Glu Gly	Pro Asn Cys Glu Gln Ala	
125	130	135
Leu Pro Ser Leu Pro Ala Thr Gly Trp	Thr Glu Ser Met Ala Pro	
140	145	150
Arg Gln Leu Gln Pro Val Pro Ala Thr	Gln Glu Pro Asp Lys Ile	
155	160	165
Leu Pro Arg Ser Gln Ala Thr Val Thr	Leu Pro Thr Trp Gln Pro	
170	175	180
Lys Thr Gly Gln Lys Val Val Glu Met	Lys Trp Asp Gln Val Glu	
185	190	195
Val Ile Pro Asp Ile Ala Cys Gly Asn	Ala Ser Ser Asn Ser Ser	
200	205	210
Ala Gly Gly Arg Leu Val Ser Phe Glu	Val Pro Gln Asn Thr Ser	
215	220	225
Val Lys Ile Arg Gln Asp Ala Thr Ala	Ser Leu Ile Leu Leu Trp	
230	235	240
Lys Val Thr Ala Thr Gly Phe Gln Gln	Cys Ser Leu Ile Asp Gly	
245	250	255
Arg Ser Val Thr Pro Leu Gln Ala Ser	Gly Gly Leu Val Leu Leu	
260	265	270
Glu Glu Met Leu Ala Leu Gly Asn Asn	His Phe Ile Gly Phe Val	
275	280	285
Asn Asp Ser Val Thr Lys Ser Ile Val	Ala Leu Arg Leu Thr Leu	
290	295	300
Val Val Lys Val Ser Thr Cys Val Pro	Gly Glu Ser His Ala Asn	
305	310	315
Asp Leu Glu Cys Ser Gly Lys Gly Lys	Cys Thr Thr Lys Pro Ser	
320	325	330
Glu Ala Thr Phe Ser Cys Thr Cys Glu	Glu Gln Tyr Val Gly Thr	
335	340	345
Phe Cys Glu Glu Tyr Asp Ala Cys Gln	Arg Lys Pro Cys Gln Asn	
350	355	360
Asn Ala Ser Cys Ile Asp Ala Asn Glu	Lys Gln Asp Gly Ser Asn	
365	370	375
Phe Thr Cys Val Cys Leu Pro Gly Tyr	Thr Gly Glu Leu Cys Gln	
380	385	390
Ser Lys Ile Asp Tyr Cys Ile Leu Asp	Pro Cys Arg Asn Gly Ala	
395	400	405

09644960 96844560

Thr Cys Ile Ser	Ser Leu Ser Gly Phe	Thr Cys Gln Cys Pro Glu	410	415	420
Gly Tyr Phe Gly	Ser Ala Cys Glu Glu	Lys Val Asp Pro Cys Ala	425	430	435
Ser Ser Pro Cys	Gln Asn Asn Gly Thr	Cys Tyr Val Asp Gly Val	440	445	450
His Phe Thr Cys	Asn Cys Ser Pro Gly	Phe Thr Gly Pro Thr Cys	455	460	465
Ala Gln Leu Ile	Asp Phe Cys Ala Leu	Ser Pro Cys Ala His Gly	470	475	480
Thr Cys Arg Ser	Val Gly Thr Ser Tyr	Lys Cys Leu Cys Asp Pro	485	490	495
Gly Tyr His Gly	Leu Tyr Cys Glu Glu	Glu Tyr Asn Glu Cys Leu	500	505	510
Ser Ala Pro Cys	Leu Asn Ala Ala Thr	Cys Arg Asp Leu Val Asn	515	520	525
Gly Tyr Glu Cys	Val Cys Leu Ala Glu	Tyr Lys Gly Thr His Cys	530	535	540
Glu Leu Tyr Lys	Asp Pro Cys Ala Asn	Val Ser Cys Leu Asn Gly	545	550	555
Ala Thr Cys Asp	Ser Asp Gly Leu Asn	Gly Thr Cys Ile Cys Ala	560	565	570
Pro Gly Phe Thr	Gly Glu Glu Cys Asp	Ile Asp Ile Asn Glu Cys	575	580	585
Asp Ser Asn Pro	Cys His His Gly Gly	Ser Cys Leu Asp Gln Pro	590	595	600
Asn Gly Tyr Asn	Cys His Cys Pro His	Gly Trp Val Gly Ala Asn	605	610	615
Cys Glu Ile His	Leu Gln Trp Lys Ser	Gly His Met Ala Glu Ser	620	625	630
Leu Thr Asn Met	Pro Arg His Ser Leu	Tyr Ile Ile Ile Gly Ala	635	640	645
Leu Cys Val Ala	Phe Ile Leu Met Leu	Ile Ile Leu Ile Val Gly	650	655	660
Ile Cys Arg Ile	Ser Arg Ile Glu Tyr	Gln Gly Ser Ser Arg Pro	665	670	675
Ala Tyr Glu Glu	Phe Tyr Asn Cys Arg	Ser Ile Asp Ser Glu Phe	680	685	690
Ser Asn Ala Ile	Ala Ser Ile Arg His	Ala Arg Phe Gly Lys Lys			

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

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<210> 16
<211> 43
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic Oligonucleotide Probe

<400> 16
tgtaaaacga cggccagtta aatagacctg caattattaa tct 43

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<210> 17
<211> 41
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic Oligonucleotide Probe

<400> 17
caggaaacag ctatgaccac ctgcacacct gcaaattccat t 41

```
<210> 18
<211> 508
<212> DNA
<213> Homo Sapien
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<400> 18
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acgaaagtgt gacccccctt tcaggctttc aggggggactg gtccctcttg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggatgaagg 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttctgtggtt tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500
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aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcg c ttaactctgg tggtgaaggt 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtgttcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttctgggta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500
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```
<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence
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<400> 20
ctctggaagg tcacggccac agg 23
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<220>
<223> Synthetic oligonucleotide probe

```
<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence
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20

SECRET

gctttgccaa ccgaactga 69

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<210> 23
<211> 1520
<212> DNA
<213> Homo Sapien
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<400> 23
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gcccacacca tgccggggcac ctacgctccc tcgaccacac tcagtagtcc 150
cagcaccag ggcttgcaag agcaggcacg ggccctgatg cgggacttcc 200
cgctcgtgga cggccacaac gacctgcccc tggctctaag gcaggtttac 250
cagaaagggc tacaggatgt taacctgcgc aatttcagct acggccagac 300
cagcctggac aggcttagag atggcctcgt gggcgcccag ttctggtcag 350
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gagcagattg acctatacgc ccgcatgtgt gcctcctatt ctgagctgga 450
gcttgtgacc tcggctaaag ctctgaacga cactcagaaa ttggcctgcc 500
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acaacatcag cgggctgact gactttggtg agaaggtggt ggcagaaatg 700
aaccgcctgg gcatgatggt agacttatcc catgtctcag atgctgtggc 750
acggcgggcc ctggaagtgt cacaggcacc tgtgatcttc tcccactcgg 800
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gattatgatg gggccggcaa attccctcag gggctggaag acgtgtccac 1050
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agcttcaggg tgtccttcgt ggaaacctgc tgcgggtctt cagacaagtg 1150

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 cactggacag ccaagttacc agccaagtgg tcagtctcag agtcctcccc 1350
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<210> 24
 <211> 433
 <212> PRT
 <213> Homo Sapien

<400> 24
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 20 25 30
 Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
 35 40 45
 Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
 50 55 60
 Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
 65 70 75
 Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
 80 85 90
 Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
 95 100 105
 Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
 110 115 120
 Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
 125 130 135
 Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
 140 145 150
 Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
 155 160 165
 Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
 170 175 180

0944396-083101

Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala	185	190	195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser	200	205	210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val	215	220	225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg	230	235	240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly	245	250	255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro	260	265	270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys	275	280	285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp	290	295	300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr	305	310	315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu	320	325	330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg	335	340	345
Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu	350	355	360
Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser	365	370	375
Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln	380	385	390
Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala	395	400	405
Lys Trp Ser Val Ser Glu Ser Ser Pro His Met Ala Pro Val Leu	410	415	420
Ala Val Val Ala Thr Phe Pro Val Leu Ile Leu Trp Leu	425	430	

<210> 25
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 25
agttctggtc agcctatgtg cc 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
gagcagattg acctcatagc ccgcattgtg gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
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gatccgcggc cgcaattct aaaccaacat gccgggcacc tacgtccct 100
cgaccacact cagtagtccc agcaccacagg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgccct 200
ggctctaagg caggtttacc agaaagggt acaggatgtt aacctgcgca 250
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094435083101

0094486-03101

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 cagtctcaga gtctctcccc caccctgaca aaactcacac atgcccaccg 1350
 tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc 1400
 aaaaccaag gacacc 1416

<210> 30
 <211> 446
 <212> PRT
 <213> Homo Sapien

<400> 30
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 Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
 20 25 30
 Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
 35 40 45
 Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser

00044856-03401

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Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly	65	70	75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg	80	85	90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg	95	100	105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys	110	115	120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu	125	130	135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe	140	145	150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn	155	160	165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr	170	175	180
Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu Lys Val Val Ala	185	190	195
Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser His Val Ser	200	205	210
Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala Pro Val	215	220	225
Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala Arg	230	235	240
Asn Val Pro Asp Asp Ile Leu Gln Leu Leu Lys Lys Asn Gly Gly	245	250	255
Val Val Met Val Ser Leu Ser Met Gly Val Ile Gln Cys Asn Pro	260	265	270
Ser Ala Asn Val Ser Thr Val Ala Asp His Phe Asp His Ile Lys	275	280	285
Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp	290	295	300
Gly Ala Gly Lys Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr	305	310	315
Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Gly Trp Ser Glu Glu	320	325	330
Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg	335	340	345

Gln Val Glu Lys Val Gln Glu Glu Asn Lys Trp Gln Ser Pro Leu
350 355 360

Glu Asp Lys Phe Pro Asp Glu Gln Leu Ser Ser Ser Cys His Ser
365 370 375

Asp Leu Ser Arg Leu Arg Gln Arg Gln Ser Leu Thr Ser Gly Gln
380 385 390

Glu Leu Thr Glu Ile Pro Ile His Trp Thr Ala Lys Leu Pro Ala
395 400 405

Lys Trp Ser Val Ser Glu Ser Ser Pro His Pro Asp Lys Thr His
410 415 420

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
425 430 435

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
440 445

<210> 31
<211> 1790
<212> DNA
<213> Homo Sapien

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cccggcagcg ccggccccc atccgcgcgc cgccggggcc ccgcccacca 150
atccgcgcgc cgccgcgcgc cgttgctgcc cctgctgctg ctgctctgcg 200
tctcgggggc gccgcgagcc ggatcaggag cccacacagc tgtgatcagt 250
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atggccagga caacacatgt gaggagtacc acacagtggg gcccactcc 700
tgccacatcc ccaaggacct ggtctctttt acgccctatg agatctgggt 750
ggaggccacc aaccgcctgg gctctgcccg ctccgatgta ctcacgtgg 800

109484660

Ser Val His Gly Asp Pro Pro Gly Ala Thr Ala Glu Gly Leu Tyr	65	70	75
Trp Thr Leu Asn Gly Arg Arg Leu Pro Pro Glu Leu Ser Arg Val	80	85	90
Leu Asn Ala Ser Thr Leu Ala Leu Ala Leu Ala Asn Leu Asn Gly	95	100	105
Ser Arg Gln Arg Ser Gly Asp Asn Leu Val Cys His Ala Arg Asp	110	115	120
Gly Ser Ile Leu Ala Gly Ser Cys Leu Tyr Val Gly Leu Pro Pro	125	130	135
Glu Lys Pro Val Asn Ile Ser Cys Trp Ser Lys Asn Met Lys Asp	140	145	150
Leu Thr Cys Arg Trp Thr Pro Gly Ala His Gly Glu Thr Phe Leu	155	160	165
His Thr Asn Tyr Ser Leu Lys Tyr Lys Leu Arg Trp Tyr Gly Gln	170	175	180
Asp Asn Thr Cys Glu Glu Tyr His Thr Val Gly Pro His Ser Cys	185	190	195
His Ile Pro Lys Asp Leu Ala Leu Phe Thr Pro Tyr Glu Ile Trp	200	205	210
Val Glu Ala Thr Asn Arg Leu Gly Ser Ala Arg Ser Asp Val Leu	215	220	225
Thr Leu Asp Ile Leu Asp Val Val Thr Thr Asp Pro Pro Pro Asp	230	235	240
Val His Val Ser Arg Val Gly Gly Leu Glu Asp Gln Leu Ser Val	245	250	255
Arg Trp Val Ser Pro Pro Ala Leu Lys Asp Phe Leu Phe Gln Ala	260	265	270
Lys Tyr Gln Ile Arg Tyr Arg Val Glu Asp Ser Val Asp Trp Lys	275	280	285
Val Val Asp Asp Val Ser Asn Gln Thr Ser Cys Arg Leu Ala Gly	290	295	300
Leu Lys Pro Gly Thr Val Tyr Phe Val Gln Val Arg Cys Asn Pro	305	310	315
Phe Gly Ile Tyr Gly Ser Lys Lys Ala Gly Ile Trp Ser Glu Trp	320	325	330
Ser His Pro Thr Ala Ala Ser Thr Pro Arg Ser Glu Arg Pro Gly	335	340	345
Pro Gly Gly Gly Ala Cys Glu Pro Arg Gly Gly Glu Pro Ser Ser			

350

355

360

Gly Pro Val Arg Arg Glu Leu Lys Gln Phe Leu Gly Trp Leu Lys
 365 370 375

Lys His Ala Tyr Cys Ser Asn Leu Ser Phe Arg Leu Tyr Asp Gln
 380 385 390

Trp Arg Ala Trp Met Gln Lys Ser His Lys Thr Arg Asn Gln Asp
 395 400 405

Glu Gly Ile Leu Pro Ser Gly Arg Arg Gly Thr Ala Arg Gly Pro
 410 415 420

Ala Arg

<210> 33

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 33

cccgcccgac gtgcacgtga gcc 23

<210> 34

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 34

tgagccagcc caggaactgc ttg 23

<210> 35

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 35

caagtgcgct gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36

<211> 1771

<212> DNA

<213> Homo Sapien

<400> 36

cccacgcgtc cgctggtggt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacaccaa cgctcgcagc cacaaaaggg 100
 atgaaatttc ttctggacat cctcctgctt ctcccgttac tgatcgtctg 150
 ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
 tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250
 ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
 tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350
 gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
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 agtaaataat gctggtgtag tctatacatc agatttgttt gctacacaag 500
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 actacaaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600
 tgtcactgtg gcttcggcag ctggacatgt ctcggtcccc ttcttactgg 650
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 aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa 950
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 aaaatttgta ccataaccgt ttattttaaca tatattttta tttttgattg 1350
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<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37
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Arg Lys Ser Val Thr Gly Glu Ile Val Leu Ile Thr Gly Ala Gly
35 40 45
His Gly Ile Gly Arg Leu Thr Ala Tyr Glu Phe Ala Lys Leu Lys
50 55 60
Ser Lys Leu Val Leu Trp Asp Ile Asn Lys His Gly Leu Glu Glu
65 70 75
Thr Ala Ala Lys Cys Lys Gly Leu Gly Ala Lys Val His Thr Phe
80 85 90
Val Val Asp Cys Ser Asn Arg Glu Asp Ile Tyr Ser Ser Ala Lys
95 100 105
Lys Val Lys Ala Glu Ile Gly Asp Val Ser Ile Leu Val Asn Asn
110 115 120
Ala Gly Val Val Tyr Thr Ser Asp Leu Phe Ala Thr Gln Asp Pro
125 130 135
Gln Ile Glu Lys Thr Phe Glu Val Asn Val Leu Ala His Phe Trp
140 145 150
Thr Thr Lys Ala Phe Leu Pro Ala Met Thr Lys Asn Asn His Gly
155 160 165
His Ile Val Thr Val Ala Ser Ala Ala Gly His Val Ser Val Pro
170 175 180
Phe Leu Leu Ala Tyr Cys Ser Ser Lys Phe Ala Ala Val Gly Phe
185 190 195
His Lys Thr Leu Thr Asp Glu Leu Ala Ala Leu Gln Ile Thr Gly

200	205	210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe	Val Asn Thr Gly Phe	
215	220	225
Ile Lys Asn Pro Ser Thr Ser Leu Gly	Pro Thr Leu Glu Pro Glu	
230	235	240
Glu Val Val Asn Arg Leu Met His Gly	Ile Leu Thr Glu Gln Lys	
245	250	255
Met Ile Phe Ile Pro Ser Ser Ile Ala	Phe Leu Thr Thr Leu Glu	
260	265	270
Arg Ile Leu Pro Glu Arg Phe Leu Ala	Val Leu Lys Arg Lys Ile	
275	280	285
Ser Val Lys Phe Asp Ala Val Ile Gly	Tyr Lys Met Lys Ala Gln	
290	295	300

<210> 38
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 38
 ggtgaaggca gaaattggag atg 23

<210> 39
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 39
 atcccatgca tcagcctgtt tacc 24

<210> 40
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 40
 gctggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41
 <211> 1377
 <212> DNA
 <213> Homo Sapien

<400> 41

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gaaccaggac tggggtgacg gcagggcagg gggcgcctgg ccggggagaa 100
gcgcgggggc tggagcacca ccaactggag ggtccggagt agcgagcgcc 150
ccgaaggagg ccatcgggga gccgggaggg gggactgcga gaggaccccg 200
gcgtccgggc tcccgggtgcc agcgctatga ggccactcct cgtcctgctg 250
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cagcctctgc ccggggcacc ccggccttcc aggcacgccg ggccaccatg 350
gcagccaggg cttgccgggc cgcgatggcc gcgacggccg cgacggcgcg 400
cccggggctc cgggagagaa aggcgagggc gggaggccgg gactgccggg 450
acctcgaggg gaccccgggc cgcgaggaga ggcgggaccc gcggggccca 500
ccgggcctgc cggggagtgc tcggtgctc cgcgatecgc cttcagcgcc 550
aagcgtccg agagccgggt gcctccgccg tctgacgcac ccttgccctt 600
cgaccgcgtg ctggtgaacg agcagggaca ttacgacgcc gtcaccggca 650
agttcacctg ccagggtgcct ggggtctact acttcgcgt ccatgccacc 700
gtctaccggg ccagcctgca gtttgatctg gtgaagaatg gcgaatccat 750
tgctctttc ttccagtttt tcggggggtg gcccagcca gcctcgtct 800
cggggggggc catggtgagg ctggagcctg aggaccaagt gtgggtgcag 850
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aaaaaaaaa aaaaaaaaaa aaaaaaa 1377

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

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Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly	20	25	30	
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly	35	40	45	
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly	50	55	60	
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly	65	70	75	
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly	80	85	90	
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala	95	100	105	
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp	110	115	120	
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His	125	130	135	
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val	140	145	150	
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln	155	160	165	
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln	170	175	180	
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala	185	190	195	
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly	200	205	210	
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser	215	220	225	
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro	230	235	240	
Val	Phe	Ala																

<210> 43
 <211> 24

00944896.003101

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gctgactcc tggagattgt gaatagctcc 50

atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100

acctgacggg cccaacagac ccatgctgca tccagagacc tcccctggcc 150

gggggcatct cctggctgtg ctctggccc tcttggcac cacctgggca 200

gaggtgtggc caccagct gcaggagcag gctccgatgg ccggagccct 250

gaacaggaag gagagtttct tgctcctctc cctgcacaac cgctgcgca 300

gctgggtcca gcccctgcg gctgacatgc ggaggctgga ctggagtgc 350

agcctggccc aactggctca agccagggca gccctctgtg gaatcccaac 400

cccagcctg gcatccggcc tgtggcgcac cctgcaagtg ggctggaaca 450

tgcagctgct gcccggggc ttggcgctct ttgttgaagt ggtcagccta 500

tggtttgag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550

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agctgggctg tgggcggcac ctgtgctctg caggccagac agcgatagaa 650

gcctttgtct gtgcctactc ccccgaggc aactgggagg tcaacgggaa 700

gacaatcacc ccctataaga agggtgctg gtgttcgctc tgcacagcca 750

gtgtctcagg ctgcttcaaa gcctgggacc atgcaggggg gctctgtgag 800

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gccaaagtgc gtgcagcctg cagtgtgtgc acggccggtt ccgggaggag 950

gagtgtcgt gcgctctgtga catcggtac gggggagccc agtgtgccac 1000

caaggtgcat ttcccttcc acacctgtga cctgaggatc gacggagact 1050

gcttcattgt gtcttcagag gcagacacct attacagagc caggatgaaa 1100

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09944896-033101

SECRET

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Val	Leu	Leu	Ala	Leu	Leu	Gly	Thr	Thr	Trp	Ala	Glu	Val	Trp	Pro			
				20					25					30			
Pro	Gln	Leu	Gln	Glu	Gln	Ala	Pro	Met	Ala	Gly	Ala	Leu	Asn	Arg			
				35					40					45			
Lys	Glu	Ser	Phe	Leu	Leu	Leu	Ser	Leu	His	Asn	Arg	Leu	Arg	Ser			
				50					55					60			
Trp	Val	Gln	Pro	Pro	Ala	Ala	Asp	Met	Arg	Arg	Leu	Asp	Trp	Ser			
				65					70					75			
Asp	Ser	Leu	Ala	Gln	Leu	Ala	Gln	Ala	Arg	Ala	Ala	Leu	Cys	Gly			
				80					85					90			
Ile	Pro	Thr	Pro	Ser	Leu	Ala	Ser	Gly	Leu	Trp	Arg	Thr	Leu	Gln			
				95					100					105			
Val	Gly	Trp	Asn	Met	Gln	Leu	Leu	Pro	Ala	Gly	Leu	Ala	Ser	Phe			

110										115					120				
Val	Glu	Val	Val	Ser	Leu	Trp	Phe	Ala		Glu	Gly	Gln	Arg	Tyr	Ser				
				125						130					135				
His	Ala	Ala	Gly	Glu	Cys	Ala	Arg	Asn		Ala	Thr	Cys	Thr	His	Tyr				
				140						145					150				
Thr	Gln	Leu	Val	Trp	Ala	Thr	Ser	Ser		Gln	Leu	Gly	Cys	Gly	Arg				
				155						160					165				
His	Leu	Cys	Ser	Ala	Gly	Gln	Thr	Ala		Ile	Glu	Ala	Phe	Val	Cys				
				170						175					180				
Ala	Tyr	Ser	Pro	Gly	Gly	Asn	Trp	Glu		Val	Asn	Gly	Lys	Thr	Ile				
				185						190					195				
Ile	Pro	Tyr	Lys	Lys	Gly	Ala	Trp	Cys		Ser	Leu	Cys	Thr	Ala	Ser				
				200						205					210				
Val	Ser	Gly	Cys	Phe	Lys	Ala	Trp	Asp		His	Ala	Gly	Gly	Leu	Cys				
				215						220					225				
Glu	Val	Pro	Arg	Asn	Pro	Cys	Arg	Met		Ser	Cys	Gln	Asn	His	Gly				
				230						235					240				
Arg	Leu	Asn	Ile	Ser	Thr	Cys	His	Cys		His	Cys	Pro	Pro	Gly	Tyr				
				245						250					255				
Thr	Gly	Arg	Tyr	Cys	Gln	Val	Arg	Cys		Ser	Leu	Gln	Cys	Val	His				
				260						265					270				
Gly	Arg	Phe	Arg	Glu	Glu	Glu	Cys	Ser		Cys	Val	Cys	Asp	Ile	Gly				
				275						280					285				
Tyr	Gly	Gly	Ala	Gln	Cys	Ala	Thr	Lys		Val	His	Phe	Pro	Phe	His				
				290						295					300				
Thr	Cys	Asp	Leu	Arg	Ile	Asp	Gly	Asp		Cys	Phe	Met	Val	Ser	Ser				
				305						310					315				
Glu	Ala	Asp	Thr	Tyr	Tyr	Arg	Ala	Arg		Met	Lys	Cys	Gln	Arg	Lys				
				320						325					330				
Gly	Gly	Val	Leu	Ala	Gln	Ile	Lys	Ser		Gln	Lys	Val	Gln	Asp	Ile				
				335						340					345				
Leu	Ala	Phe	Tyr	Leu	Gly	Arg	Leu	Glu		Thr	Thr	Asn	Glu	Val	Thr				
				350						355					360				
Asp	Ser	Asp	Phe	Glu	Thr	Arg	Asn	Phe		Trp	Ile	Gly	Leu	Thr	Tyr				
				365						370					375				
Lys	Thr	Ala	Lys	Asp	Ser	Phe	Arg	Trp		Ala	Thr	Gly	Glu	His	Gln				
				380						385					390				

Val Trp Leu Ser Ala Ala Met Gly Phe Gly Asn Cys Val Glu Leu
410 415 420

Gln Ala Ser Ala Ala Phe Asn Trp Asn Asp Gln Arg Cys Lys Thr
425 430 435

Arg Asn Arg Tyr Ile Cys Gln Phe Ala Gln Glu His Ile Ser Arg
440 445 450

Trp Gly Pro Gly Ser
455

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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

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<210> 52
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 52
gggtctgggc caggtggaag agag 24

<210> 53
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 53
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<210> 54
<211> 2331
<212> DNA
<213> Homo Sapien

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gctgtccctg tgtgtggggt cgcaggaaga ggcgagagc tggggccact 150
cttcggagca ggatggactc aggggtcccga ggcaagtcag actgttgcag 200

094439C 083104

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cgatgagaag atggccacct gcaagccagg aagacggccc tcaccagaca 2200
ccatgtctgc tggcaccttg atcttgacc tccagcctc cagaactgtg 2250
agaaataaat gtgttttgtt taagctaaaa aaaaaaaaaa aaaaaaaaaa 2300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2331

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<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
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Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30
Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

0994496-063101

410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr 425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu 440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu 455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr 470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val 485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser 500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His 515	520	525
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile 530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp 545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr 560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu 575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg 590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu 605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met 620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro 635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly 650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys 665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His 680	685	690
Leu Gly Ile Arg		

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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
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<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatata agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

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tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgaccat 200

cagttgtccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250
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acagtgatat tgg 1413

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<210> 61
<211> 440
<212> PRT
<213> Homo Sapien
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Phe Thr Lys Asp Val	Thr Val Ile Glu Gly Glu	Val Ala Thr Ile	
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Ser Cys Gln Val Asn	Lys Ser Asp Asp Ser	Val Ile Gln Leu Leu	
65	70		75
Asn Pro Asn Arg Gln	Thr Ile Tyr Phe Arg	Asp Phe Arg Pro Leu	
80	85		90
Lys Asp Ser Arg Phe	Gln Leu Leu Asn Phe	Ser Ser Ser Glu Leu	
95	100		105
Lys Val Ser Leu Thr	Asn Val Ser Ile Ser	Asp Glu Gly Arg Tyr	
110	115		120
Phe Cys Gln Leu Tyr	Thr Asp Pro Pro Gln	Glu Ser Tyr Thr Thr	
125	130		135
Ile Thr Val Leu Val	Pro Pro Arg Asn Leu	Met Ile Asp Ile Gln	
140	145		150
Lys Asp Thr Ala Val	Glu Gly Glu Glu Ile	Glu Val Asn Cys Thr	
155	160		165
Ala Met Ala Ser Lys	Pro Ala Thr Thr Ile	Arg Trp Phe Lys Gly	
170	175		180
Asn Thr Glu Leu Lys	Gly Lys Ser Glu Val	Glu Glu Trp Ser Asp	
185	190		195
Met Tyr Thr Val Thr	Ser Gln Leu Met Leu	Lys Val His Lys Glu	
200	205		210
Asp Asp Gly Val Pro	Val Ile Cys Gln Val	Glu His Pro Ala Val	
215	220		225
Thr Gly Asn Leu Gln	Thr Gln Arg Tyr Leu	Glu Val Gln Tyr Lys	
230	235		240
Pro Gln Val His Ile	Gln Met Thr Tyr Pro	Leu Gln Gly Leu Thr	
245	250		255
Arg Glu Gly Asp Ala	Leu Glu Leu Thr Cys	Glu Ala Ile Gly Lys	
260	265		270
Pro Gln Pro Val Met	Val Thr Trp Val Arg	Val Asp Asp Glu Met	
275	280		285
Pro Gln His Ala Val	Leu Ser Gly Pro Asn	Leu Phe Ile Asn Asn	
290	295		300
Leu Asn Lys Thr Asp	Asn Gly Thr Tyr Arg	Cys Glu Ala Ser Asn	

SECRET

<220>
<223> Synthetic oligonucleotide probe

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<210> 66
<211> 24
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 66
atagctgtgt ctgcgtctgc tgcg 24

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<210> 67
<211> 50
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 67
cgcggcactg atccccacag gtgatgggca gaatctgttt acgaaagacg 50

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<210> 68
<211> 2555
<212> DNA
<213> Homo Sapien
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<400> 68
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ttgccggcct gccgggcctg cagctcctgg acctgtcaca gaaccagatc 400
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<210> 69
 <211> 598
 <212> PRT
 <213> Homo Sapien

<400> 69
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 20 25 30
 Ser Gln Pro Gln Thr Val Phe Cys Thr Ala Arg Gln Gly Thr Thr
 35 40 45
 Val Pro Arg Asp Val Pro Pro Asp Thr Val Gly Leu Tyr Val Phe
 50 55 60
 Glu Asn Gly Ile Thr Met Leu Asp Ala Ser Ser Phe Ala Gly Leu
 65 70 75
 Pro Gly Leu Gln Leu Leu Asp Leu Ser Gln Asn Gln Ile Ala Ser
 80 85 90
 Leu Arg Leu Pro Arg Leu Leu Leu Leu Asp Leu Ser His Asn Ser
 95 100 105
 Leu Leu Ala Leu Glu Pro Gly Ile Leu Asp Thr Ala Asn Val Glu

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110	115	120
Ala Leu Arg Leu	Ala Gly Leu Gly Leu	Gln Gln Leu Asp Glu Gly
125	130	135
Leu Phe Ser Arg	Leu Arg Asn Leu His	Asp Leu Asp Val Ser Asp
140	145	150
Asn Gln Leu Glu	Arg Val Pro Pro Val	Ile Arg Gly Leu Arg Gly
155	160	165
Leu Thr Arg Leu	Arg Leu Ala Gly Asn	Thr Arg Ile Ala Gln Leu
170	175	180
Arg Pro Glu Asp	Leu Ala Gly Leu Ala	Ala Leu Gln Glu Leu Asp
185	190	195
Val Ser Asn Leu	Ser Leu Gln Ala Leu	Pro Gly Asp Leu Ser Gly
200	205	210
Leu Phe Pro Arg	Leu Arg Leu Leu Ala	Ala Ala Arg Asn Pro Phe
215	220	225
Asn Cys Val Cys	Pro Leu Ser Trp Phe	Gly Pro Trp Val Arg Glu
230	235	240
Ser His Val Thr	Leu Ala Ser Pro Glu	Glu Thr Arg Cys His Phe
245	250	255
Pro Pro Lys Asn	Ala Gly Arg Leu Leu	Leu Glu Leu Asp Tyr Ala
260	265	270
Asp Phe Gly Cys	Pro Ala Thr Thr Thr	Thr Ala Thr Val Pro Thr
275	280	285
Thr Arg Pro Val	Val Arg Glu Pro Thr	Ala Leu Ser Ser Ser Leu
290	295	300
Ala Pro Thr Trp	Leu Ser Pro Thr Ala	Pro Ala Thr Glu Ala Pro
305	310	315
Ser Pro Pro Ser	Thr Ala Pro Pro Thr	Val Gly Pro Val Pro Gln
320	325	330
Pro Gln Asp Cys	Pro Pro Ser Thr Cys	Leu Asn Gly Gly Thr Cys
335	340	345
His Leu Gly Thr	Arg His His Leu Ala	Cys Leu Cys Pro Glu Gly
350	355	360
Phe Thr Gly Leu	Tyr Cys Glu Ser Gln	Met Gly Gln Gly Thr Arg
365	370	375
Pro Ser Pro Thr	Pro Val Thr Pro Arg	Pro Pro Arg Ser Leu Thr
380	385	390
Leu Gly Ile Glu	Pro Val Ser Pro Thr	Ser Leu Arg Val Gly Leu
395	400	405

Gln Arg Tyr Leu Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
410	420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr	
425	435
Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu	
440	450
Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro	
455	465
Gly Arg Val Pro Glu Gly Glu Glu Ala Cys Gly Glu Ala His Thr	
470	480
Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg	
485	495
Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val	
500	510
Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg	
515	525
Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val	
530	540
Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro	
545	555
Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Gly Glu Ala Leu	
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Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly	
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Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile	
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<210> 70
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 70
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<210> 71
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 71
cggttctggg gacgttaggg ctcg 24

<210> 72
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 72
ctgcccaccg tccacctgcc tcaat 25

<210> 73
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 73
aggactgcc accgtccacc tgcctcaatg ggggcacatg ccacc 45

<210> 74
<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 74
acgcaaagcc ctacatctaa gccagagaga gacagggcag ctggg 45

<210> 75
<211> 1077
<212> DNA
<213> Homo Sapien

<400> 75
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094496 083101

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<210> 78
 <211> 281
 <212> PRT
 <213> Homo Sapien

<400> 78
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 35 40 45
 Pro Pro Asp His Ala Glu Arg Ala Glu Glu Gln His Glu Lys Tyr
 50 55 60
 Arg Pro Ser Gln Asp Gln Gly Leu Pro Ala Ser Arg Cys Leu Arg
 65 70 75
 Cys Cys Asp Pro Gly Thr Ser Met Tyr Pro Ala Thr Ala Val Pro
 80 85 90
 Gln Ile Asn Ile Thr Ile Leu Lys Gly Glu Lys Gly Asp Arg Gly
 95 100 105
 Asp Arg Gly Leu Gln Gly Lys Tyr Gly Lys Thr Gly Ser Ala Gly

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Ala	Pro	Gly	Glu	Arg 140	Cys	Lys	Ser	His	Tyr 145	Ala	Ala	Phe	Ser	Val 150		
Gly	Arg	Lys	Lys	Pro 155	Met	His	Ser	Asn	His 160	Tyr	Tyr	Gln	Thr	Val 165		
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Phe	Thr	Gly	Lys	Phe 185	Tyr	Cys	Tyr	Val	Pro 190	Gly	Leu	Tyr	Phe	Phe 195		
Ser	Leu	Asn	Val	His 200	Thr	Trp	Asn	Gln	Lys 205	Glu	Thr	Tyr	Leu	His 210		
Ile	Met	Lys	Asn	Glu 215	Glu	Glu	Val	Val	Ile 220	Leu	Phe	Ala	Gln	Val 225		
Gly	Asp	Arg	Ser	Ile 230	Met	Gln	Ser	Gln	Ser 235	Leu	Met	Leu	Glu	Leu 240		
Arg	Glu	Gln	Asp	Gln 245	Val	Trp	Val	Arg	Leu 250	Tyr	Lys	Gly	Glu	Arg 255		
Glu	Asn	Ala	Ile	Phe 260	Ser	Glu	Glu	Leu	Asp 265	Thr	Tyr	Ile	Thr	Phe 270		
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<212> DNA
<213> Artificial Sequence
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<211> 45
<212> DNA
<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 81
cccgggtgctt gcgctgctgt gaccccggtta cctccatgta cccgg 45

<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
gcggagcatc cgctgcggtc ctgcgcgaga ccccgcgcg gattcgccgg 50
tccttccccgc gggcgcgaca gagctgtcct cgcacctgga tggcagcagg 100
ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gaccaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
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agtcagaatt gcctcaaaaa gagtctagaa gatgttgtca ttgacatcca 350
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ctcaagaaga ctgcattaat tcttgctgtt caacaaaaaa catatcaggg 450
gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
acccaactgc tacctatctt tctgtcccaa cgaggaagcc tgtccattga 550
aaccagcaaa aggacttatg agttacagga taattacaga ttttccatct 600
ttgaccagaa atttgccaag ccaagagtta cccaggaag attctctctt 650
acatggccaa ttttcacaag cagtcactcc cctagcccat catcacacag 700
attattcaaa gccaccgat atctcatgga gagacacact ttctcagaag 750
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tgcccagctc cttgcttata aggaaaaagg ccattctcag agttcacaat 850
tttctctga tcaagaaata gctcatctgc tgctgaaaaa tgtgagtgcg 900
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aaagcccgcc acccttctac ccaccaatgc ttcagtgaca ccttctggga 1000
cttcccagcc acagctggcc accacagctc cacctgtaac cactgtcact 1050

09944395-083104

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tacactccaa gcaatggcta caacagcagt tctgactacc acctttcagg 1150
cacctacgga ctcgaaaggc agcttagaaa ccataccgtt tacagaaatc 1200
tccaacttaa ctttgaacac aggggaatgtg tataacccta ctgcactttc 1250
tatgtcaaat gtggagtctt ccactatgaa taaaactgct tcctgggaag 1300
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cagtacggcc ttccatttga aaaatggctt cttatcgggt cctgctctt 1400
tgggtgtcctg ttcttggtga taggcctcgt cctcctgggt agaatccttt 1450
cggaatcact ccgcaggaaa cgttactcaa gactggatta tttgatcaat 1500
gggatctatg tggacatcta aggatggaac tcggtgtctc ttaattcatt 1550
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gttttatggt tggtttttga gaaggaatga agtggggaacc aaattaggta 2000
attttgggta atctgtctct aaaatattag ctaaaaacaa agctctatgt 2050
aaagtaataa agtataattg ccatataaat ttcaaaattc aactggcttt 2100
tatgcaaaga aacagggttag gacatctagg ttccaattca ttcacattct 2150
tggttccaga taaaatcaac tgtttatata aatttctaataa ggatttgctt 2200
ttctttttat atggattcct ttaaaactta ttccagatgt agttccttcc 2250
aattaaatat ttgaataaat cttttgttac tcaa 2284

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<210> 83
<211> 431
<212> PRT
<213> Homo Sapien
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305	310	315
Ser Leu Glu Thr Ile Pro Phe Thr Glu	Ile Ser Asn Leu Thr Leu	
320	325	330
Asn Thr Gly Asn Val Tyr Asn Pro Thr	Ala Leu Ser Met Ser Asn	
335	340	345
Val Glu Ser Ser Thr Met Asn Lys Thr	Ala Ser Trp Glu Gly Arg	
350	355	360
Glu Ala Ser Pro Gly Ser Ser Ser Gln	Gly Ser Val Pro Glu Asn	
365	370	375
Gln Tyr Gly Leu Pro Phe Glu Lys Trp	Leu Leu Ile Gly Ser Leu	
380	385	390
Leu Phe Gly Val Leu Phe Leu Val Ile	Gly Leu Val Leu Leu Gly	
395	400	405
Arg Ile Leu Ser Glu Ser Leu Arg Arg	Lys Arg Tyr Ser Arg Leu	
410	415	420
Asp Tyr Leu Ile Asn Gly Ile Tyr Val	Asp Ile	
425	430	

<210> 84
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 84
 agggaggatt atccttgacc tttgaagacc 30

<210> 85
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 85
 gaagcaagtg cccagctc 18

<210> 86
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 86
 cgggtccctg ctcttttg 18

<210> 87
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 87
caccgtagct gggagcgac tcac 24

<210> 88
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 88
agtgttaagtc aagctccc 18

<210> 89
<211> 49
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 89
gcttctcgac actaaggctg tctgctagtc agaattgcct caaaaagag 49

<210> 90
<211> 957
<212> DNA
<213> Homo Sapien

<400> 90
cctggaagat ggcgccattg gctgggtggcc tgctcaagggt ggtgttcgtg 50
gtcttcgcct ccttgtygtgc ctggtattcg gggtagctgc tcgcagagct 100
cattccagat gcacccctgt ccagtgtgc ctatagcatc cgcagcatcg 150
gggagaggcc tgtcctcaaa gctccagtc ccaaaaggca aaaatgtgac 200
cactggactc cctgcccatac tgacacctat gcctacagggt tactcagcgg 250
agggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctgggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctgggaatgt gacagcaaca cgatgttttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatgggtg acctatgacg acggaagcac aagactgaat 500

aacgatgcc aagaatgccat agaagcactt ggaagtaaag aaatcaggaa 550
 catgaaattc aggtctagct gggatattat tgcagcaaaa ggcttggaaac 600
 tcccttccga aattcagaga gaaaagatca accactctga tgctaagaac 650
 aacagatatt ctggctggcc tgcagagatc cagatagaag gctgcatacc 700
 caaagaacga agctgacact gcagggtcct gagtaaagt gttctgtata 750
 aacaaatgca gctggaatcg ctcaagaatc ttatttttct aaatccaaca 800
 gcccatatct gatgagtatt ttgggtttgt tgtaaaccac tgaacatttg 850
 ctagttgtat caaatcttgg tacgcagtat tttatacca gtattttatg 900
 tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950
 aaaaaaa 957

<210> 91
 <211> 235
 <212> PRT
 <213> Homo Sapien

<400> 91
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 1 5 10 15
 Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu
 20 25 30
 Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
 35 40 45
 Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
 50 55 60
 Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
 65 70 75
 Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
 80 85 90
 Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
 95 100 105
 Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
 110 115 120
 Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
 125 130 135
 Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
 140 145 150
 Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
 155 160 165

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Asp	Ala	Lys	Asn	Ala	Ile	Glu	Ala	Leu	Gly	Ser	Lys	Glu	Ile	Arg
			170						175					180
Asn	Met	Lys	Phe	Arg	Ser	Ser	Trp	Val	Phe	Ile	Ala	Ala	Lys	Gly
			185						190					195
Leu	Glu	Leu	Pro	Ser	Glu	Ile	Gln	Arg	Glu	Lys	Ile	Asn	His	Ser
			200						205					210
Asp	Ala	Lys	Asn	Asn	Arg	Tyr	Ser	Gly	Trp	Pro	Ala	Glu	Ile	Gln
			215						220					225
Ile	Glu	Gly	Cys	Ile	Pro	Lys	Glu	Arg	Ser					
			230						235					

<210> 92
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 92
 aatgtgacca ctggactccc 20

<210> 93
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 93
 aggcttggaa ctcccttc 18

<210> 94
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 94
 aagattcttg agcgattcca gctg 24

<210> 95
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 95
 aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

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T E T A P I D E B U

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<400> 96
ctcaagaagc acgcgtactg c 21
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<220>
<223> Synthetic oligonucleotide probe

```
<400> 97
ccaacctcag cttccgctc tacga 25
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```
<210> 98
<211> 18
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<400> 98
catccaggct cgccactg 18
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<210> 99
<211> 20
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

<400> 99
tggcaaggaa tgggaacagt 20

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<210> 100
<211> 25
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<400> 100
atgctgccag acctgatcgc agaca 25
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<210>	101
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<223> Synthetic oligonucleotide probe

<400> 101

gggcagaaat ccagccact 19

<210> 102

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<213> Artificial Sequence

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<223> Synthetic oligonucleotide probe

<400> 102

cccttcgcct gcttttga 18

<210> 103

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 103

gccatctaata tgaagcccat cttccca 27

<210> 104

<211> 19

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 104

ctggcggtgt cctctcctt 19

<210> 105

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 105

cctcggtctc ctcactgtg a 21

<210> 106

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

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<223> Synthetic oligonucleotide probe

<400> 106
tggcccagct gacgagccct 20

<210> 107
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<212> DNA
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<220>
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<400> 107
ctcataggca ctcggttctg g 21

<210> 108
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 108
tggctcccag cttggaaga 19

<210> 109
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 109
cagctcttgg ctgtctccag tatgtaccca 30

<210> 110
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 110
gatgcctctg ttctgcaca t 21

<210> 111
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 111

[illegible]

<400> 117
ggatttctaatt acgactcaact atagggcccc cctgagctct cccgtgta 48

<220>
<223> Synthetic oligonucleotide probe

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<400> 118
ctatgaaatt aaccctcact aaagggaagg ctcgccactg gtcgtaga 48
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<210> 119
<211> 48
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<400> 119
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```
<210> 120
<211> 47
<212> DNA
<213> Artificial Sequence
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<220>
<223> Synthetic oligonucleotide probe

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<400> 120
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